

**Exercise 1** Melinda grows a unique type of mango known for its sweetness and smoothness. Because of this, the price of a mango increases with the distance from Melinda's farm. The function  $M$  gives the price of a mango in dollars given the distance  $x$  in miles from Melinda's farm:

$$M(x) = \frac{1}{100}x^2 + 4$$

(a) Compute  $AV_{[1,10]}$ .

$AV_{[1,10]} = \$\boxed{1.11}$  per mile from Melinda's farm.

(b) Compute  $AV_{[200,300]}$ .

$AV_{[200,300]} = \$\boxed{5}$  per mile from Melinda's farm.

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